

Potential excess spend in primary care due to NHS drug tariff variability in vitamin D preparations

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Objectives

Vitamin D is commonly prescribed in primary care for the prevention and treatment of deficiency and for maintenance after treatment (although supplementation for maintenance and prevention can be bought over-the-counter). There is wide variation in the costs to the NHS in England of oral preparations of vitamin D, even for a single-specific dose and route.¹ It is possible that the availability of multiple options for the same intended medicine, the costs of which are unlikely to be known by the prescriber, could result in an inadvertent excess spend. We aimed to estimate the annual cost-saving if only the cheapest vitamin D preparations were prescribed.

Design

Primary care prescribing data for 2018 were downloaded from NHS Digital (<https://digital.nhs.uk>).² Monthly datasets include the number of items, quantity and cost of each drug prescribed and dispensed. Private prescriptions are not recorded. All prescription items relating to the vitamin D preparations colecalciferol and ergocalciferol, regardless of dose, route or manufacturer, were extracted. Data for each specific preparation were aggregated across all practices and all months to give the annual number of items and their cost across England. All liquid and injectable preparations were assumed to be appropriately prescribed and therefore excluded from the analysis. Combined preparations – such as calcium/vitamin D, calcium/alendronate and multivitamins – were also

excluded. For each defined dose range of vitamin D, the lowest cost preparation was identified, and the potential cost-savings if only these preparations were prescribed was calculated.

Setting

Primary care in England.

Participants

All patients registered with a general practitioner in England in 2018.

Main Outcome Measure

The difference between actual and potential spend on vitamin D prescriptions, if only the lowest priced preparation were available.

Results

In 2018, over 4 million vitamin D items were prescribed in primary care, at a cost of over £21 million. If only the cheapest options were prescribed for non-liquid preparations across all dose ranges, and assuming all prescriptions were appropriate, it would have resulted in an approximate £15 million (>70%) cost-saving to the NHS. Maintenance doses of vitamin D (designated as 800 to 2000 international units per day as per NICE guidelines³) accounted for more than half of the spend (~£12 million). It was noted that all the cheapest options available are suitable for vegetarians.

Conclusion

The prescribing of more expensive vitamin D preparations in primary care may have significant financial consequences, although our results relate to a single year of prescribing within NHS primary care. Since choice of preparation may intentionally be based on factors other than cost (e.g. dietary requirements, bio-availability, what was initially prescribed by a hospital), work is needed nationally to rationalise available prescribing options. If national guidance were produced, the difficulties of implementation within individual Clinical Commissioning Groups might limit economic benefit. National efficient procurement strategies are an alternative approach, but require careful consideration of legislative frameworks (such as the Public Contract Regulations 2015⁴) with safeguards to prevent horizontal cooperation between suppliers.

Declarations

Competing Interests: None declared.

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Guarantor: SS.

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